Call for Papers for a Special Issue on Additive Manufacturing (AM) and 3D Printing

Transactions of the ASME
Journal of Manufacturing Science and Engineering

Additive Manufacturing (AM), also known as 3D printing, has emerged over the last 2-3 years as a highly visible collection of advanced manufacturing processes. It has impacted the way engineering design is done and has enabled “distributed manufacturing,” a decentralization of manufacturing capability from factories to offices and homes. The AM of service parts is proving economically feasible for short-production runs of parts with complex geometry. Even though the technology is now over 30 years old, fresh attention is creating a renaissance of both commercial and academic activity. This is predicted to continue, building on the new federal initiative on advanced manufacturing, including AM, increased public awareness, and the growing number of areas in which AM is making an impact, as well as the proliferation of AM machines, particularly low-cost printers due in part to the expiration of primary patents. Associated with this increase in interest in AM is an intensification of research and development. It is therefore appropriate to consider publishing a collection of manuscripts that typify the breadth of current research in the field to stimulate further research. To this end, a special issue of the ASME journal, Journal of Manufacturing Science and Engineering, is planned for the last quarter of 2014 on the topic of Additive Manufacturing (AM) and 3D Printing. Manuscripts representing the broad field are invited. Specific topic areas include but are not limited to:

- AM machine design and performance
- AM process control and sensing, including cyber-enabled AM
- Materials development, characterization, and performance
- Design for AM
- Validation, verification and qualification of AM parts
- Modeling and simulation of AM processes
- Micro-AM processes
- Infrastructure of AM, supply-chain impact of AM
- Sustainability issues in AM
- 3D representation of solid objects, slicing algorithms
- Bio-additive manufacturing

Manuscripts are due April 15, 2014 and publication of the Special Issue is scheduled for December 1, 2014.

Submission Guidelines:
Please submit papers in electronic form directly to the Journal at http://journaltool.asme.org. If you already have an account, login as author and select Submit Paper at the bottom page. If you don’t have an account yet, select Submissions and follow the steps. In either case, at the Paper Submittal page, select the Journal of Manufacturing Science and Engineering and then select the special issue Additive Manufacturing (AM) and 3D Printing.

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